

CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

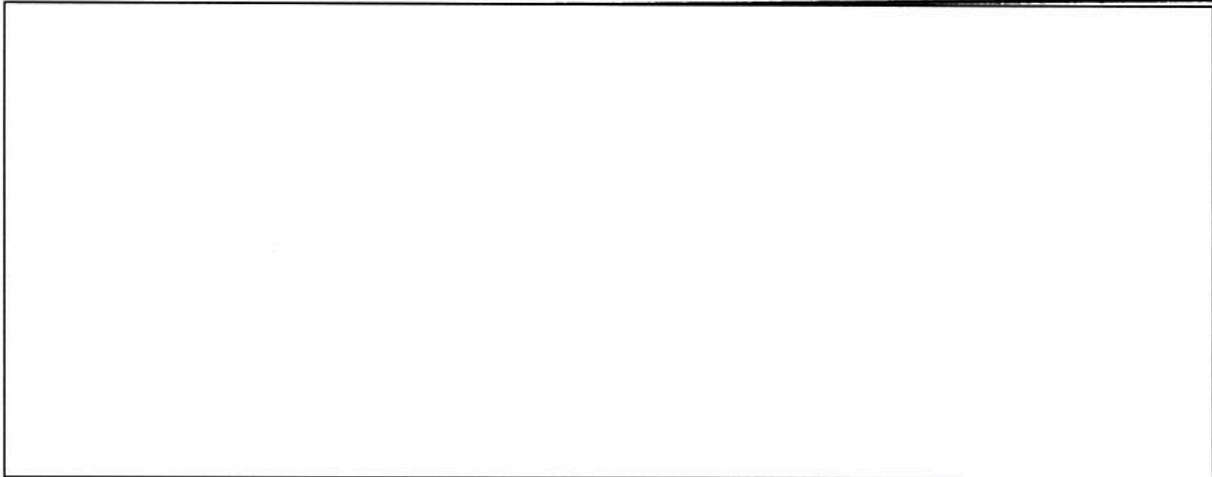
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COUNTRY	USSR	REPORT NO.	[REDACTED]	25X1
SUBJECT	Contribution of German Scientists to the Soviet Guided Missile Program	DATE DISTR.	18 August 1953	
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25X1 [REDACTED] Comment: [REDACTED] the Soviet missile development and  
 25X1 priority matters are mostly the result of inferences and are not based on first-  
 hand observations. [REDACTED]

25X1 [REDACTED]

25X1 ORIGINAL PURPOSE OF GERMAN DEPORTATION TO THE SOVIET UNION

- 25X1 1. [REDACTED] the Soviet missile program was initiated as late as 1945, upon the  
 cessation of hostilities. At that time, the program was at best comparable to  
 the German development stage of 1938, when missiles were little more than pet  
 theories of a few college professors.
2. Upon arrival in Germany, the Soviets literally took everything they could find  
 in Germany concerning this new weapon. They procured drawings, calculations,  
 and equipment; in short, everything which was related to the German missile  
 program. The scientists too, who had knowledge of German missile development,  
 were approached by the Soviets.
3. The Soviets made no immediate attempt to systematically study and evaluate the  
 material obtained. Instead, they sent this indiscriminately collected mass to  
 the USSR, where the process of sorting and analyzing was to take place.

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25X1 [ ] it is wrong to believe that  
 25X1 the German specialists were brought to the Soviet Union only when the  
 Soviets encountered difficulties in re-constructing the German war-  
 time missiles. Instead [ ] the scientists as well as  
 the missile reference material were regarded as spoils of war.

TWO SEPARATE GUIDED MISSILE PROGRAMS

4. Some Soviet-supervised studies of the German missiles had already  
 been made in the years 1945 and 1946 in such places as Nordhausen  
 and Soemmerda. Upon arrival in the USSR, the Soviet missile develop-  
 ment program was divided into two distinct branches. The Germans,  
 for example, those in Ostashkov, were given research programs which  
 constituted modifications, refinements, or advances on the German  
 war models in regard to range and load capacity. The second, or  
 Soviet, branch pursued a course which was not made known to the German  
 25X1 scientists. [ ] they spent the first period  
 studying the German approach, and that at a given time the Soviet  
 specialists pushed beyond the latest German development point. In  
 what year, however, the Soviets attained the German stage of 1945  
 is not known to me.

PRIORITY ASSIGNED TO THE MISSILE PROGRAM

5. There is no question that the Soviets pursued this work with great  
 intensity, and that a priority was assigned to this research work.  
 A clue to the actual priority rating of the missile program may be  
 obtained from the salaries given the German specialists working in  
 the USSR. The missile personnel received salaries which were con-  
 siderably higher than those received by personnel engaged in the  
 airplane industry, while they received somewhat less than electronic  
 specialists.

6. The Soviets would have little difficulty in shifting the necessary  
 manpower to a priority project. This can be done in several ways.  
 For instance, a certain percentage of engineering graduates can be  
 ordered to a desired institute or plant; or, engineers from other  
 plants can be attracted by means of allurements in the form of higher  
 wages, special bonuses, etc. [ ] it is also possible that  
 25X1 ideological arguments may be used to sway young graduate engineers  
 into critical fields. Should such arguments prove ineffective, other  
 25X1 methods will be used. [ ] young graduates are given their  
 choice of several locations or plants for work upon graduation.  
 Generally some weight is given to the student's own preference, but  
 it is equally possible to insure the needed skilled manpower for  
 priority projects by simply controlling or eliminating altogether  
 the choice factor.

CONTRIBUTION MADE BY GERMAN SCIENTISTS TO SOVIET RESEARCH AND DEVELOPMENT PROGRAM

7. [ ]  
 25X1 [ ] the Soviets  
 profited relatively little. This was primarily because of the Soviets'  
 method of operating, and also the lack of facilities, particularly  
 25X1 experimental facilities, on the Island. [ ] similar work  
 with the same number of personnel, if performed in Germany and under  
 normal circumstances would have been performed in perhaps one-third

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[redacted]

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the time. [redacted]

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8. It may appear paradoxical that some items of considerable interest were nevertheless developed under the given circumstances. It may well be that [redacted] these technical novelties, such as the movable high pressure motor of the R-14, the thermodynamic formulas for the determination of metal heating at extreme altitudes and speeds, or the war-head separation principle of the R-10 and R-14 projects, as a direct result of [redacted] primitive working conditions. The ideal of engineering, to create something out of relatively little, may have been reached in some isolated problems just because of the primitive circumstances [redacted]

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ADVERSE WORKING CONDITIONS RESTRICT OUTPUT

9. [redacted]  
The emotions of the war years and the post-war occurrences in the Soviet Zone of Germany had left their indelible marks [redacted]

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[redacted]

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10. [redacted] a general depression prevailed among the German specialists at Ostashkov, arising from the poverty of [redacted] surroundings [redacted]  
This mood was reflected in [redacted] work output. [redacted]

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[redacted]

It was during this period that the R-113, the final major project, was executed by the Germans at Gorodomlya. The low ebb was reached in January 1952, when the first group of German scientists from Ostashkov were returned to the Soviet Zone of Germany.

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11. The most elemental equipment required [redacted] was lacking, and [redacted] working facilities were no better than [redacted] housing facilities which were very primitive. The power supply often failed. At times there was insufficient drawing equipment, and even pencils were lacking. Most important, of course, was the complete absence of experimental equipment. [redacted]

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[redacted]

12. Another factor that prevented a more effective exploitation of the German scientists by the Soviets was the absence of necessary technical literature. [redacted]

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[redacted]

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13. Although journals from the most diverse technical fields were available, there was not a single periodical on rocket development. [redacted] 25X1  
 [redacted] many of the journals [redacted] 25X1  
 received were always censored and often whole articles or sentences were deleted. [redacted] 25X1  
 [redacted] 25X1  
 [redacted] Comment: [redacted] 25X1  
 [redacted] Dr. ALBRING obtained the elements of a formula on the effect of heat on steel at extreme speeds and altitudes from technical literature available at Ostashkov. [redacted] 25X1  
 [redacted] 25X1

RETARDING EFFECT OF SOVIET OPERATION METHODS

14. The greatest deterrent to progress was caused by Soviet operating methods with the emphasis on planning. This method invaded even the scientific research fields. Every development assignment [redacted] was to be completed by a certain time [redacted] 25X1  
 [redacted]  
 [redacted] It was further required, to give a periodical account of the degree of completion the project had achieved, expressed in terms of percent. All this was time consuming and [redacted] Furthermore, it inevitably led to misleading accounts [redacted] 25X1  
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15. Additional time was wasted when, at the end of a given report period, the Soviets found that the prospective development stage had not been reached. Many days would then be lost convincing (often by fraudulent means) the Soviets that the expected stage had been reached, or to explain why the stage could not be reached. In short, a wearisome battle of words ensued which resulted in the loss of many manhours of labor.

16. Time was also lost as a result of impossible demands made by the Soviets. [redacted] 25X1  
 [redacted] 25X1

17. No time was lost as a result of placing ideologically acceptable Soviets of inferior technical capacity in positions of leadership. Then again, this problem was not experienced at Ostashkov, since the Soviet personnel employed there had essentially only administrative functions.

MEASURES SOVIETS COULD TAKE TO ASSURE A MORE EFFICIENT EXPLOITATION

18. [redacted] technical efficacy, the Soviets would have to correct the various conditions cited above. [redacted] 25X1  
 [redacted] 25X1

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MINOR PROJECTS CONTINUED BY REMAINING SCIENTISTS

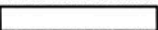
19. Approximately twenty-five German scientists and their families remained in Ostashkov after the departure of the Germans in June 1952. 

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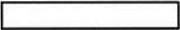

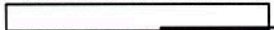

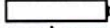



REASON FOR RETENTION OF GERMAN SCIENTISTS

20. The selection of these particular twenty-five scientists was not governed by the degree of importance of their work or their capacity as engineers or scientists. On the contrary, among the twenty-five are some who possess relatively inferior technical ability.  the deciding factor in their retention was purely political. The Soviets probably regarded them as politically unreliable. Perhaps, they had made a comment which came to the attention of a political security office, or their sympathy with the West was all too apparent.

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CALIBER OF SOVIET TECHNICAL TRAINING

21.  Soviet training methods prevent the rise of creative researchers.  Soviet engineering personnel received excellent theoretical educations, comparable with the training received in European universities. Although possessing the theoretical knowledge they are unable to effectively apply this knowledge in solving practical problems. They appear to lack the creative talent necessary for original research.  this is due to two factors: national backwardness /  Comment:  referred to a national biological inferiority/, and the environment of an authoritarian state.  inquiry and speculation is strictly repressed, even in the natural sciences, for fear that this attitude may not be confined to the field of science but may, in time, lead to criticism and heresy in the political arena as well.

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